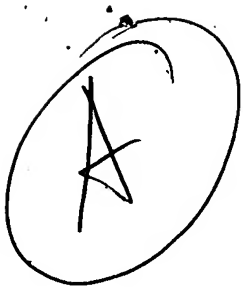

significantly until the incident angle is large than 20°. It is also noted that the peak reflectivity of the broad-angle ML mirror is less than the current mirror.

[0025] However, if the broad angle mirror is replacing only one of 6 mirrors in the system, the overall throughput loss is fairly small. **Figure 5** shows the phase shifts as a function of incident angle for the broad-angle ML mirror. Notice that less than 20° phase shifts occur at approximately the 20° incident angle. The reflectivity as a function of wavelength for the broad-angle ML mirror is also shown in **Figure 6**.

Table 1

BiLayer #	Material	Thickness [nm]	Material	Thickness [nm]
0	Substrate Si	10.48		
1	Mo	11.29	Si	3.49
2	Mo	3.74	Si	3.5
3	Mo	3.73	Si	10.44
4	Mo	3.69	Si	3.48
5	Mo	3.56	Si	7.64
6	Mo	3.46	Si	3.5
7	Mo	3.63	Si	3.57
8	Mo	3.62	Si	3.6
9	Mo	3.62	Si	3.63
10	Mo	3.6	Si	3.66
11	Mo	3.56	Si	3.69
12	Mo	3.52	Si	3.74
13	Mo	3.44	Si	3.83
14	Mo	3.26	Si	4.06
15	Mo	2.41	Si	8.33
16	Mo	3.07	Si	3.85
17	Mo	3.42	Si	3.75
18	Mo	3.5	Si	3.72
19	Mo	3.53	Si	3.71
20	Mo	3.53	Si	3.72
21	Mo	3.53	Si	3.72
22	Mo	3.52	Si	3.73
23	Mo	3.51	Si	3.74
24	Mo	3.49	Si	3.75
25	Mo	3.48	Si	3.76
26	Mo	3.46	Si	3.78
27	Mo	3.44	Si	3.79
28	Mo	3.41	Si	3.81
29	Mo	3.38	Si	3.83
30	Mo	3.35	Si	3.86
31	Mo	3.31	Si	3.89
32	Mo	3.26	Si	3.92
33	Mo	3.19	Si	3.97
34	Mo	3.11	Si	4.03
35	Mo	3	Si	4.1
36	Mo	2.61		
37	Vacuum			